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ARTICLE I.

CASES OF EXTIRPATION OF THE PAROTID GLAND AND OTHER GLANDULAR TUMORS.

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The possibility of removing the whole of the parotid gland by operation is hardly called in question by intelligent surgeons. Indeed, it is, at the present time, difficult to understand how it should have ever given rise to the discussions which have been witnessed on the subject. Might not the possibility of removing the whole of the thyroid body, or of lower jaw, be denied with equal reason.

Allan Burns seems to have been the first to attempt to prove its removal impossible. His reason was that where the gland and all its ducts were fully injected with mercury, it could not be dissected out; the mercury escaping at numerous points. Without having made the experiment, I can easily believe that this is so. But as is remarked by Vidal, the ducts may be opened, yet the gland removed. Besides, the mercurial injection, by filling all the gland, enlarges it, and renders the pressure on the walls of the fissure containing it much greater than in the dead or living subject not injected. Some who were forced

to admit the removal of the gland, still contend that it has been done rarely, and deny that most of the cases reported as such refer to the gland at all. Velpeau, in his *Operative Surgery*, and Beclard, in his thesis, seem to cast doubt upon all those cases in which no great hemorrhage occurred, and in which the face was not paralyzed, or in which the movements of the muscles of the face were restored after having been lost. Yet, in many of the cases whose validity is not disputed, there was little hemorrhage and no ligatures applied; and in his report to the Imperial Academy of Medicine, Oct. 26, 1858, M. Malgaigne admits that "in certain exceptional cases, on account of anomalies shown by dissections, the parotid gland may be completely removed without wounding the external carotid artery or the trunk of the facial nerve." This conclusion was sustained by the Academy. M. Naegale, as quoted by Velpeau, affirms that in the dead subject the gland may be dissected away without wounding the trunk of the nerve, and that he has removed it in the living without causing paralysis.

For myself, I should look with suspicion upon all cases where the external carotid artery is not divided, and those where the face is not paralyzed; but am sure that when the gland is attacked from below, as in McClellan's cases, this artery is often torn across and does not bleed; and I see no reason to doubt that the development of the gland may, in many cases, diminish the size, or even obliterate the artery by pressure, as happened in a case of Heyfelder. It seems certain that the hemorrhage from removing enlarged lymphatic glands is quite as great as that from extirpation of the parotid. I am not prepared to say, in regard to the restoration of the movements of the face, how far this may be due to the action of other nerves with which it is known the muscles of the face are supplied. Mr. Fergusson says that in a case in which he divided the facial nerve, the paralysis became, after a time, much less conspicuous than at first.

The entire removal of the gland has been proved by dissection, for surgeons have unfortunately lost their patients and made post-mortem examinations, as happened to Lisfranc and Beclard. Where the body, angle, ramus and condyle of the jaw

have been removed, and the surface of the mastoid process, the glenoid cavity and tubercle of the temporal bone scraped, as performed by me in a case published in the *Amer. Jour. of the Medical Sciences* for Oct., 1853, there is no room for doubt.

I have since repeated this operation twice, and it was once performed by Mr. Hysern, a Spanish surgeon, as quoted by Velpeau.* When the jaw is removed, there can be no difficulty in discerning the tissues in the wound, and detecting any portions of the gland which may remain. But this is not necessary to establish the truth of the reports of the operation. If A. Cooper, Beclard, Larrey, Warren, Mott, McClellan, and the scores of surgeons who, knowing the controversy on the subject, have reported operations of the kind, are not to be credited, it will be difficult to find any reliable authority in surgery. More than this, I believe there is no reasonable ground to doubt that Heister really removed it. Any one who will consult his work, "Institutions de Chirurgie," vol. 3, p. 129, *et seq.* (1770), will find that he describes an operation in which a pound of blood is lost during the incisions, in which death often occurred, and that he criticises Gurengeot who had spoken of it as not dangerous. Heister also says that there were surgeons in his day who denied the possibility of removing the gland.

The case of Jane Sharp, as reported by John Bell, could hardly have been less than the entire extirpation of the organ. He says, "After the operation, I put my finger into the hollow whence the gland was extracted, which I felt to be two inches and a half deep at its lower angle behind the corner of the jaw bone; the carotid lay bare, beating strongly, not dilated; the upper part of the wound was deep, so that the finger touched the pterygoid process forwards and the apophysis cuneiformis backwards; and when she swallowed, the morsel, in passing down the pharynx, pressed upon the point of the finger."†

The late Professor George McClellan, who performed this operation eleven times, used to state in his lectures that the operation is much more easily performed on the living than on

* Operative Surgery, French edition, vol. 1, Supplementary Appendix. This part is mutilated in the translation by Townsend.

† Principles of Surgery, p. 507.

the dead subject, giving as a reason, that the gland being situated in a triangular fissure, whose base is directed outwardly, any considerable enlargement must cause it to rise out of its bed, and draw with it all those prolongations whose removal in a healthy state would be so difficult.

The same fact was noticed by Dr. Randolph and Dr. N. R. Smith, who even say that it becomes pediculated. My own experience fully confirms the views of Dr. McClellan, without, however, going so far in this respect as that of Dr. Smith.

It were easy for me to quote above fifty operations of what I deem undoubted cases of removal of the parotid gland, of which about one-half have been reported in this country, and this without including any anterior to that of Beclard, but it would be of little interest. I shall, therefore, give a report of two cases in which the gland was removed, together with some others in which operations much more difficult were performed for the removal of diseased lymphatic glands. I reserve three cases, in which the organ in question was removed along with the half of the lower jaw (disarticulated), for a subsequent communication.

I have added figures of some of the tumors, taken by daguerreotype, believing they would be useful in aiding the diagnosis, for I have generally noticed that each organ in its morbid growth assumes a form peculiar to itself, and believe that careful attention will enable the surgeon to distinguish between enlargements of the parotid and those of the glands situated in contact with it, by the form and situation alone.

CASE 1.—Removal of the Parotid Gland for Scirrhus—Cure.



Rebecca Dearsdorff, aged thirty years, of full habit and good health, consulted me, January 30, 1857, on account of a tumor situated between the ramus of the jaw and the lobe of the ear. The attention of the patient was first directed to this tumor four years previously, when only a slight enlargement existed. From that

time it increased slowly and without any pain until within three months, when it has grown rapidly, and now presents the appearance well represented in the foregoing figure. The tumor at this time is firm to the touch and presents some inequalities; the skin over it is not discolored.

Operation.—The patient having been placed under the influence of chloroform, a semi-circular incision was made, commencing behind the lobe of the ear, ending upon the middle of the cheek, and passing over the lower part of the gland. The covering having been dissected up from below, the finger was thrust beneath the tumor, by which, with an occasional touch with the knife, it was readily separated from its attachments.

A circumstance especially deserving of notice is, that *the fissure in which the gland is naturally situated was nearly empty, and the finger passed into it without difficulty.*

During the operation, the portio dura was divided; the external carotid artery was torn across, and the end of it lay in the lower part of the wound, three-fourths of an inch in length, where it had been drawn out of the tumor. It did not bleed, but, as a precaution, it was tied. The face was instantly drawn to the opposite side on the division of the nerve.

On examination of the cavity, the ramus of the jaw, the mastoid process, the styloid process in its whole length, the stylo-maxillary ligament, the auditory passage, and the ligament of the temporo-maxillary articulation, were fully exposed. At the bottom, the internal carotid artery and the internal jugular vein were distinctly seen and felt. There was no great hemorrhage. The wound was filled with a sponge until this had entirely ceased, when careful search was made by the surgeons and assistants for any remains of the parotid gland. None could be found; all the spaces into which it is said to prolong itself were vacant. The wound was dressed in the usual way, and a full dose of morphine administered.

On examining the tumor, the structure of a salivary gland was distinctly to be discerned on its entire surface. The trunk of the portio dura passed through it. The central part seemed to me very decidedly scirrhus.

The operation did not occupy ten minutes, and was by no

means very difficult. The reason is that during its growth the disease had gradually raised the gland from its bed in a manner which will be readily understood. The patient recovered, and was able to return home in two weeks.

CASE 2.—S. S. Millard, aged thirty-five years, consulted me, Nov. 10, 1858, on account of a tumor situated below the left ear. He stated that he had first perceived it about two years previously, and some months since an attempt to extirpate had been made, but the surgeon, finding it deeper and more difficult to remove than he anticipated, desisted, after having cut deeply into it, and contented himself with applying cupping glasses over its surface, by which a small part of its contents had been forced out. The wound cicatrized slowly, and at the time of examination, an irregular surface was presented, red, elastic, free from tenderness and pain. The general health was pretty good.

This tumor was removed, Nov. 13, 1858, at the U. S. Marine Hospital, in presence of the class and attendants. Owing to the cicatrix upon the surface, a piece of the skin was removed. I succeeded in getting under it at the lower part and raised it out of its bed by the fingers. There was considerable hemorrhage. The external carotid, the temporal and internal maxillary arteries requiring ligatures; the two latter on account of the retrograde circulation. The pharynx, internal carotid artery, internal jugular vein, the pterygoid muscles, were distinctly felt and seen.

The patient recovered without accident, and, Oct. 16, 1859, writes that "my face is apparently well."

On examination of the tumor, it was found to be of a narrow-like appearance, with masses firmer and apparently more fibrous than the rest. The facial nerve passed through it. (The side of the face was paralyzed after the operation.) Surrounding the morbid growth, small portions of the parotid gland, in a healthy state, were noticed.

The character of the growth would have left me in doubt as to the malignancy; but the cicatrization after the first incision, and it having remained well for eleven months, leads me to think that it was not cancerous.

In this case, the lymphatic glands removed with the tumor were healthy, and the disease seemed evidently to have originated in the parotid. I therefore took great pains to search for any parts which might have remained, and a small piece upon the side of the face was detected and removed after the principal growth had been taken out.

CASE 3.—Myeloid Tumor, situated above the Parotid Gland—Operation—Cure.



John Halbon, of Lodi, Kane Co., Ill., consulted me, Jan. 11, 1859, on account of a tumor situated on the left parotid region, the size and form of which are represented by the annexed figure, from a daguerreotype. This had been discovered about a year previously, and its growth had been without pain or any alteration of the health. The skin over it was not discolored. It was elastic and free from tenderness.

It was removed the same day. A cyst surrounded it, which seemed to be composed of condensed cellular tissue, and the tumor itself appeared to have originated in a lymphatic gland. It extended deeply behind the angle of the jaw, but was dissected out mostly by the finger without division of any important artery. The space left was not like that found after removal of the parotid gland. The patient recovered without accident, and up to the present time there has been no return of the disease.

The tumor, on being laid open, showed a structure somewhat jelly-like, but firmer, of a reddish gray color. I think it to be what is described by Lebert as "fibro-plastic," and by Paget as "myeloid."

CASE 4.—Enlargement of the Lymphatic Glands in the Parotid Region—Extirpation.

The following case is presented as an example of those enlargements of the lymphatic glands said to be often mistaken for disease of the parotid gland.



S. S., aged twenty years, consulted me, May 11, 1859, on account of a tumefaction of the left side of the neck. On examination, a glandular enlargement was detected, situated behind and below the angle of the jaw. The appearance is well represented by the annexed figure.

The tumor was firm, lobulated, but did not give the sensation of scirrhus. The skin over it was, at the most prominent parts, somewhat discolored.

History.—The tumefaction had existed over six months, and had been treated but in a very insufficient manner with iodine. The patient's health, in other respects, was good.

March 11. The tumor was extirpated. It extended deeply down upon the sheath of the great tissues of the neck, under the angle of the jaw, and encroached upon the situation of the parotid gland. It was adherent on all sides, and was dissected out with difficulty, and a part was so invested with the great tissues, that it could not be removed. Three large arteries required ligatures, viz., the facial, lingual, and the trunk of the external carotid behind the jaw. After the operation was finished, the parotid gland was found in its natural situation, but so much scooped out that it was perhaps possible to have supposed that part of it had been removed.

The tumor, on examination, presented no appearance of cancerous tissue, but was probably of the kind called fibro-plastic.

The patient was put upon the free use of iodide potass internally, and lint placed in the wound so as to prolong the suppurative action. He did well, and returned home at the end of three weeks in a favorable state.

CASE 5.—Cancer of the Lymphatic Glands of the Side of the Neck—Operation.

M. N., aged forty-eight years, consulted me, Sept. 1, 1857, on account of a large tumor of the left side of the neck. The appearance of this tumor at the time is so perfectly well repre-



that appearance of sallowness which is so generally observed in malignant disease.

History.—The growth of this tumor had been slow. It was first noticed about two years previously, and remained for over a year indolent and free from pain. Recently, the growth has been very active and the pain excessively severe, particularly in the right hand, arm and shoulder. It was this pain which induced me to give way to the solicitations of the patient and perform an operation for its removal. The well-marked appearances of malignancy, and the constitutional symptoms, rendered the return of the disease certain, and the size and situation of the tumor rendered the success of an operation doubtful. Many patients reported to have died of air entering the veins, or from the effect of chloroform, have undoubtedly sunk from the extent of the wound and the depressing effect of the operation.

The operation was performed, Sept. 20, 1857, at DeKalb Centre, in presence of the physicians of the place and Dr. Winer, my assistant. Nothing peculiar occurred during the operation. It was of great difficulty, very long, and left the patient much depressed. The sheath of the great vessels was denuded at one point, and the brachial plexus of nerves exposed. The patient, however, recovered; the wound cicatrized, and for about four weeks some relief was experienced, but, at the end of that time, the pain returned; there was an inflammation of the throat, attended with great difficulty of swallowing.

He died with these symptoms, without any external appearance of return of disease, about eight weeks after the operation.

ARTICLE II.

ESSAY ON PNEUMONIA.

(Read before the Hendricks County Medical Society.)

BY A. HEAVENRIDGE, M. D., OF STILESVILLE, IND.

Gentlemen of the Hendricks Co. Medical Society:

By reason of the legal operations of our organization, it becomes my duty to read a disquisition on some medical subject. I have chosen for that purpose the investigation of that very common, yet very important, disease, familiar to every practitioner of medicine as Pulmonitis or Pneumonia. I am aware that there has been some discrepancy of opinion among nosological writers, as to the precise tissue or tissues involved in pneumonic inflammation; but the more recent writers confine it to the blood-vessels, air cells and inter-cellular tissue, composing the parenchymatous structure of the lungs. It is in that light I wish to be understood as using the term, thereby excluding all the inflammations involving the pleuritic membrane, except the pneumonic inflammations implicating it.

By inviting your attention to a consideration of so common a disease as that of pneumonia, I am aware that I shall create anticipations of the development of something new either in the pathology or treatment of this disease. I only wish, however, to present my views and convictions, that I may know how they compare with the experience of my collaborators in the healing art, at the present stage of medical science. As brevity is the beauty of bad composition, I shall forego an elaborate recitation of all the various theories and views that have, from time to time, been presented by the different authors upon that subject. As the object of my disquisition is brevity, with perspicuity, I shall only consider three varieties, viz., lobular, lobar and double pneumonia.

I shall, likewise, only consider three stages, that of congestion, hepatization and suppuration. There will, also, be only three complications noticed, as the development of pneumonic inflammation under all other circumstances is merely incidental, and consequently does not properly belong to this place. The

complications here alluded to are those in which the hepatic function is involved, where the system is in a typhoid condition, and that in which the pleuritic membrane is implicated, constituting the respective types, known as bilious, typhoid and pleuro-pneumonia.

It is in the form of lobular pneumonia that the disease, more generally, appears in infants and children under five and six years old; hence, the name of infantile pneumonia has been given it. In this form of the affection, the disease does not attack a whole lung, or lobe of a lung, at a time, but merely small isolated sections throughout the lung. These small patches of inflammation are diversified in size as well as number. There may only be a lobule involved in the morbid action, or there may be many, thus varying the size of the inflamed sections of lung from that of a millet seed to that of a small orange.

These small points of inflammation may serve as nuclei, from which the morbid action may radiate, uniting one with another until they involve a whole lobe or lung, thus becoming lobar pneumonia. It is in this form of the disease that we are most liable to have pulmonary abscess, formed by the small patches of inflammation running through the various stages of diseased action to suppuration, destroying the parenchyma of the lung involved in the *morbi actio*, the suppurating cavity being surrounded by a plastic wall, thus limiting the abscess, which afterwards collapses, cicatrizes, and leaves the lung sound, though contracted.

I do not wish to be understood as saying that abscess is a necessary result of this variety of pneumonic inflammation.

Why it is that this form of pneumonia is more common in children than in persons of more mature years, must be from the fact, that the pulmonary tissue of children is more susceptible of inflammations in general than that of older persons; and also, that the disease spreads more slowly through the tissue, and thus enables us to detect it before the inflammatory process has radiated throughout the entire lung or lobe.

In respect to lobar pneumonia, I am not aware that there is anything peculiar about this form of the complaint except that it attacks an entire lobe or lung at once; and it is likewise in

this form that we have the affection occurring most frequently. In double pneumonia, we have but to consider the inflammation of both lungs, or the entire breathing apparatus of man. In this form of the complaint, the danger is greatly augmented; consequently, the prognosis is rendered more dubious than in either of the other varieties. While upon this point I will say, that this form of the disease seldom passes beyond the stage of hepatization, the patient sinking before the stage of congestion is fairly passed.

In passing to the consideration of the different stages through which the different varieties of pulmonary inflammation run, when not prevented by treatment, or the voluntary resolution of the diseased action, I am aware that I am entering upon the investigation of a subject that admits of mootings to a degree far beyond any information of the physician, or good to the afflicted. In the investigation of the first, or congestive stage of this affection, it is proper to observe, that the inflammation is preceded here, as elsewhere, by irritation of the parts and by a determination of blood thereto, giving rise to a fulness of the capillary blood-vessels of the lungs. Hence, it has been claimed by some pathological writers that this forms one stage of the complaint. But, as all cases of irritation and congestion of the lungs do not pass into inflammation, it forms no part of this disease, but merely remains as congestion, and requires to be treated as such.

We have, then, in the true congestion of inflammation, not only local hyperæmia of the capillaries of the lungs, but an infiltration of the inter-cellular tissue and air cells with the liquor sanguinis, thus evolving that well known and truly diagnostic physical symptom, *crepitation*, which is produced by filling the air cells with fluid, at the same time infiltrating the cellular tissue, and thus compressing the air cells, rendering the ingress of air difficult, labored and rattling: hence the crepitation.

In this stage of the inflammation, the healthy respiratory murmur gradually or rapidly gives place to the crepitation, according as the attack has been mild or severe. In the lobular form, the healthy respiratory murmur may be heard inter-

mingling with the crepitant rale; and it is chiefly upon this diagnostic sign that we have to depend for our information as to which variety of the complaint may be present. The rational symptoms of this stage are pain in the chest, cough, hurried respiration, a hot and dry skin, a full, firm and frequent pulse, with a white or yellowish-white coat upon the tongue, accompanied with red expectoration; the bowels are generally constipated, though by no means invariably so. The urinary organs are, for the most part, inactive; the urine, when voided, bearing evidence of febrile excitement in the system. By far the most valuable of these symptoms is the expectoration of the characteristic sputa. But even this will not enable us to say conclusively that pulmonitis is present, from the fact, that the same kind of sputa—at least, apparently the same—may be produced from other causes than pneumonic inflammation of the lungs.

But while we are left in doubt as to the real nature of the disease by a mere reference to the rational symptoms, those doubts no longer exist when we come to consider the physical symptoms. And even here percussion affords little or no evidence of disease, as the lungs still remain, if not entirely as resonant as in health, so nearly so that it is with difficulty that the difference can be detected. But when we come to auscultate the lungs, we are no longer left in doubt as to the real nature of the affection. Crepitation is heard, and we say the patient has pneumonia, in a greater or less degree, according to the extent of the crepitation.

In the second or hepatized stage of this complaint, we find the inter-cellular tissue and air cells so firmly impacted with the infiltrating fluid that the air is no longer permitted to enter the air cells. Upon the accession of this stage, the breathing becomes more frequent, the face and extremities of a dingy hue, in consequence of the presence of an excess of carbon in the blood. The tongue becomes brown; pulse frequent and small. On auscultating the lungs, no sound is heard except bronchial respiration; and upon the patient speaking, bronchophony may be heard, in consequence of the consolidation of the lung, affording a more compact medium through which the voice is more readily transmitted to the ear of the auscultator.

It is said by pathological writers that there are two kinds of hepatization,—the *red* and *gray*; but I am of opinion that they are only different stages of the affection,—the red being primary and the gray being secondary, or the gray being the inception of the third or suppurative stage. Should the disease take a favorable turn during the first stage, it passes immediately into the third. Suppuration, with absorption of the effused fluids, commences; that contained within the air cells being changed into pus and expectorated, while absorption carries away that contained within the inter-lobular tissue, and thus convalescence is established.

Should the second stage terminate without abscess, the same thing is effected. When the extravasated fluid fails to be absorbed, abscess is an unavoidable consequence. The degeneration into pus of the effused plastic lymph produces softening and disintegration of the parenchymatous structure of the lungs, and, as a matter of course, abscess is the legitimate result. Should this softening be extensive, the patient sinks, and when the lung is seen, it presents a dark, motley or variegated appearance: and this is said to be gray hepatization. I do not think it possible for a lung, or any part of it, affected with what is known as gray hepatization, ever to return to health; the vitality must inevitably be too far spent for the parts to recover.

In reference to the complications of pneumonic inflammation of the lungs, I will first notice that in which the liver and its functions are involved. It is such a constant concomitant of this form of pulmonary disease that it amounts to almost a necessary part of the disease. The reason why this complication is so persistently present is obvious, when we consider the effect that capillary turgescence of the lungs has upon the liver, producing hyperæmia of the right side of the heart, and consequently of the entire venous circulation, but more especially of the capillaries of the liver. The anatomical structure of the parts is such, that the blood passes directly from the liver to the lungs.

It follows that this passive congestion of the venous capillaries must induce derangement in the hepatic function.

Pneumonia of the lungs has such a direct influence upon the

liver, that I have not unfrequently known hepatitis to be super-added to the pulmonary inflammation. In this complication we have all the symptoms of biliousness added to those of pulmonitis, such as a yellowish coat upon the tongue, a sallow complexion of the skin, with icterus of the conjunctiva, a straw colored and diminished urinary secretion.

In passing to the investigation of the typhoid complication of this disease, we are met by the reflection, that we have to do with a more grave commingling of diseased action than in any form of the disease that has passed under review. In this form of the complaint, we have, in addition to the pulmonary phlegmasia, a loss of the vital forces of the system. An aplastic condition of the blood obtains, with loss of susceptibility and vital tonicities, of all the tissues of the body. Such a state of the system is made manifest by the slow and unsteady action of the muscular movements, coupled with a dingy expression of the countenance, a frequent, soft and easily compressed pulse, with frequent mental aberrations, and, finally, delirium.

Inflammation occurring in such a state of the system must necessarily be more obscure, and less distinctly marked than when occurring in a vigorous and healthy condition of the organism. The inflammation is more disposed to become diffuse. The blood having lost, to a greater extent, its plastic properties, the inflammatory process is not circumscribed by a plastic exudation, so necessary to prevent its spread. Thus, we seldom have lobular pneumonia in typhoid conditions of the system.

The sputa in this condition is more copious, looking as though it was blood and mucus that had been squeezed through the coats of the blood-vessels and mucous membranes into the air cells. The crepitation, likewise, partakes more of the mucous rale.

Further on in the disease, we have developed all the symptoms of typhoid fever, such as a frequent and feeble pulse, continued delirium, sordes and a dry tongue, with tympanitis. The local phenomena are a flat sound, on percussion over the diseased portion of the pulmonary tissue, with bronchial respiration and bronchophony on auscultation.

Except the increased debility, we have little else than a mere

change in the physical symptoms of the second stage of this complaint to constitute the third. The physical symptoms are diminished dulness, with a return of the mucous rale, or rather the establishment of the mucous rale.

Should the inflammation be extensive, this stage of the complaint is extremely dangerous, from the copious suppuration exhausting the remaining strength of the patient, and its filling the air cells with pus, and thus preventing the aeration of the blood.

The third and remaining complication of pneumonia that I propose to consider is extensive inflammation of the pleuritic membrane, which, in fact, is nothing more than a super-addition of pleuritis to pulmonitis, constituting pleuro-pneumonia.

The causes that produce inflammation of the lungs are (like those of all other diseases that are not dependent upon a specific virus or poison) various, and many times not very apparent or easily detected; as mechanical violence, the inhalation of noxious vapors, and catarrhal inflammation of the mucous membrane of the air passages propagated to the substance of the lungs; but by far the most prolific cause seems to be an epidemical influence. What this epidemical influence consists in I am not aware of; the circumstances and materials necessary to evolve such influence are equally obscure; but certain it is that such epidemical influence many times prevails. So observable is this that each epidemic almost always has something peculiar to itself, either in its symptomatology, pathology or therapeutical indications.

Gentlemen, as the therapeutical management of a disease is the part which most interests the physician, and that upon which the welfare and happiness of the afflicted more immediately depends, I hope you will pardon me should I presume upon your patience in giving rather a minute statement of what I consider the best means of filling the therapeutical indications in the disease under consideration.

Before proceeding, however, to give my views upon the treatment of pulmonary inflammation, I propose to look for a few moments at the teachings of some of the writers of the text books. From the teachings of the books in reference to the

treatment of this disease, the novitiate in the *ars medendi* is irresistibly led to the conclusion that all he has to do to cure his pneumonic patients is to bleed them to syncope, and if reaction is well marked, they are to be bled down again; and even a third and fourth full bleeding is recommended should the inflammation not yield. After the physician has bled the patient as long as he can lose blood and live, he must then, according to some of the older therapeutical writers, administer tartarized antimony, in small and increasing quantities, until it would no longer act as an emetic, continuing it until the stomach would tolerate it in enormous quantities; and it is asserted by the advocates of such treatment that the greater tolerance shown by the system for the remedy, the more effectual it is in subduing the inflammation. Should the patient and disease both withstand the lancet and antimony, as above indicated, mercury was then to be tried; and nothing short of mercurialization of the system was considered sufficient. The object of the mercury, I suppose, was to dissolve the plasticity of the remaining blood, and leave nothing to propagate the inflammation.

The more recent writers on practical medicine recommend a less heroic employment of such spoliative measures; nevertheless, they rely on them as their *curative* means. Venesection is employed for the double purpose of diminishing the quantity of the circulating fluid, and thus relieving the labor of the inflamed organs, and also to cut the inflammation short. Antimony was administered with reference to its powerful sedative and absorbing influence upon the system. Calomel was used to dissolve the morbid plasticity of the blood, thus incapacitating it to sustain a phlogistic condition of the system.

The above means, with the addition of opium, blisters, expectorants, and, in the latter stages, stimulants, constitute the treatment of the books. I do not wish to be understood as advocating the condemnation of the foregoing plan of medication in its more moderate and judicious administration: so far from it, I have not only seen others practice it with commendable success, but have done so myself. I am of opinion, however, that at the present time such practice falls short of the present standard of medical science. Such treatment entails upon the

patient a tedious convalescence, requiring weeks and sometimes months to regain complete health. The employment of such spoliative measures implies a reduction of the vital forces of the animal economy to a point below which the inflammatory process cannot exist, which must be wholly inapplicable to those cases occurring in a typhoid condition of system.

In regard to the benefit to be derived from venesection, in acute inflammation of the lungs, I am of opinion that in subjects of a plethoric condition of system there is no single agent that the physician can employ that will do so much in facilitating the cure as the early premonition of a full bleeding. But with our present means of controlling arterial action, I am convinced that the cases must be very rare in which a second blood-letting is indicated; indeed, the number requiring venesection at all is small in proportion to the entire number of cases of lung inflammation. It is a remedial agent, the employment of which is fraught with extreme danger in those cases in which the typhoid character is well marked.

As visionary and chimerical as it may seem, I am of the opinion that after the premonition of blood-letting, in those cases requiring it, and cathartics in case of constipation of the bowels, there are no agents that the physician can employ that will facilitate the resolution of the inflammation so much as a liberal use of quinine and opium. In those cases of a less phlogistic type, with a lax or unconstipated condition of the bowels, I would exhibit the quinine and opium, in full doses, until the constitutional effect of both remedies were produced. At the same time, I would bring the arterial circulation within the point of active secretion by means of *veratrum viride*.

This condition of the system I should aim to sustain until I had reason to believe that the inflammatory process was stopped, which generally takes place in from two to five days. The amount necessary to be given at once would vary according to the age, constitution and susceptibility of the patient;—from two to three grains of the *pulvis opii*, with from four to five of the salts of quinia, repeated every three, four or five hours, will generally be found sufficient in most cases of adults;

though should this amount be found insufficient to completely quiet the cough and establish active diaphoresis, more should be given.

I am aware that the argument will be here adduced that the exhibition of such large and repeated doses of opium will dry up the secretions. In reply, I would say that is just what I would expect to do so far as the bronchial secretions are concerned, which is evidenced by the diminished expectoration; but at the same time I would expect to powerfully stimulate the sudorific exhalation.

During the administration of these remedies, the bowels should be acted upon as often as necessary. It will generally be found that after the system is completely controlled by the quinine and opium, that the arterial sedative is no longer required to diminish the arterial circulation.

I will digress sufficiently here to say, that the most prolific cause of failure of this plan of medication will generally be found in a deficient exhibition of the remedies. The *rationale* of the foregoing treatment is obvious on a moment's reflection. The opium allays the cough and irritation; hence, the determination of blood to the lungs ceases. The cough—the mechanical means by which the blood is forced through the pulmonary capillaries into the inter-cellular tissue and air cells—being quieted, we no longer have bloody expectoration. The opium further acts in connection with the quinine in equalizing the circulation, and in producing capillary turgescence of the blood capillaries of the skin. And thus we have diaphoresis, with the excess of blood as far removed from the seat of diseased action as is possible, yet remaining and sustaining the vital forces of the system. Should the opium not be administered so as to completely quiet the cough, the practitioner will fail of accomplishing his object, that of resolving the inflammation.

By thus administering these agents, the circulation is equalized, irritation allayed, pulmonic determination suspended, and consequently capillary tension removed; and the effused fluids no longer meeting with resistance, pass back into the blood-vessels, by reason of the laws of endosmosis. The plastic fluid that may have been poured into the air cells is expectorated,

and the lung passes, by an easy and rapid transit, from a state of active pulmonic inflammation to health, and that, too, without the patient passing through a tedious convalescence of weeks, as when such heroic depletory measures are employed as those above alluded to.

In uncomplicated cases of pneumonia, little else will be found necessary than to premise a full bleeding. Should the patient be plethoric, clear the bowels with an active cathartic, and then administer the quinine and opium in such quantities as to ensure their quieting and sudorific effects; controlling, at the same time, the arterial circulation by means of *veratrum viride* or *digitalis*. Should the inflammation be found obstinate in yielding, a blister will be useful in the latter part of the treatment. The system should be controlled by anodynes and tonics until convalescence commences, and then they should be gradually left off. Expectorants seldom afford much benefit in the treatment of the first stage of this complaint, except convalescence should be tedious.

In regard to the treatment of the stage of hepatization, I will only add, that blisters will be found extremely useful, after the depletory and sedative measures have been thoroughly premised. During the stage of suppuration, tonics, stimulants and expectorants are the remedies upon which we must rely to sustain the patient through the exhausting process. As tonics, the various preparations of Peruvian bark are useful, and perhaps none more so than the salts of quinia.

As a diffusible stimulant and expectorant, I have found no preparation so useful as a combination of carbonate of ammonia with a decoction of *senega*. *Sanguinaria Canadensis*, in combination with an opiate, I have found very useful as an expectorant in this stage of the disease. Wine and animal broths should be liberally administered, to sustain the patient during the exhaustion of suppuration.

In treating the complications of pneumonia it will be observed, that to make the treatment meet every indication of that very common form of the disease called bilious pneumonia, the administration of a sufficient quantity of mercurial to stimulate the hepatic function will be all that is necessary, in addition

to the plan of medication just indicated. This may be done by a mercurial pill, or a few grains of calomel at night.

In vigorous subjects with constipation of the bowels, I have found a powder, composed of calomel and podophilline, very useful in cleaning the bowels, stimulating the hepatic function, and equalizing the circulation.

In the typhoid complication of pneumonia, I am convinced that blood-letting is an extremely dangerous practice. The amount of local benefit derived from general bleeding will not compensate for the injury done the system while laboring under a disease tending so rapidly to debility, the progress of which can be so little influenced by medication. I should, therefore, depend upon anodynes, alteratives, tonics, blisters and sedatives for a resolution of the local inflammation. Mercury should be given with reference to its moderate constitutional impression, not only as being the best means of managing the fever due to the typhoid state of system, but by its absorbing effect—the best agent we have to resolve the pulmonic inflammation in such a condition of system. In the hepatized condition of the lungs, in typhoid pneumonia, blisters will be found to exert an influence of unusual benefit in discussing the inflammation. As suppuration comes on, tonics, wine, diffusible stimuli and stimulating expectorants should be resorted to; and I have found the administration of chlorate of potassa of benefit in this stage, where there is embarrassment of respiration with flagging of the vital powers, in consequence of an excess of carbon in the blood.

In treating that form of disease in which an extensive inflammation of the pleuritic membrane gives rise to that complication known as pleuro-pneumonia, in addition to the treatment indicated for simple pneumonia, it will only be necessary to add, that after all the depletory measures that are necessary have been premised, and the acuteness of the attack has been subdued, blisters over the seat of the pleuritic inflammation will generally be found beneficial.

Should the pleuritic inflammation become chronic, and persist after the lungs are relieved, counter-irritation, by means of croton oil blisters or tartar emetic ointment, with the internal

administration of iodide of potassium, muriate of ammonia, or mercury, until it affects the system moderately, will generally be found sufficient to complete the cure.

The infantile form of pneumonia—or, rather, pneumonia occurring in infants—will require some variation in treatment, in consequence of the extreme susceptibility to opium manifested during infancy. That remedy will have to be exhibited with caution. But it will almost always be found that they will bear a sufficiency of the medicine to control the cough; and as that is the *sine qua non* to the resolution of the inflammation, it should be given with reference to that result. This, with some other trifling precautionary measures, which the wisdom of the practitioner will suggest, will be sufficient for the management of the complaint as occurring in infants.

ARTICLE III.

A CASE OF SEVERE BURN, TREATED BY WHITE PAINT.— RECOVERY, ETC.

BY O. C. GIBBS, M.D., FRESSBURG, CHAUTAUQUE CO., N. Y.

April 29th, 1858, was called to S. B., a female child, aged 11 years, in consultation with Dr. Hazeltine. The girl's clothes had taken fire while she was in the house alone. She ran into the street, but soon fell, exhausted, before help came to her aid. The whole back, from the hips to the shoulders, a surface thirteen inches wide and fifteen inches long, was completely charred. The back of both arms, from the elbows to the shoulders, was also burned in the same manner.

Being away on business, I did not see the case until after dressings of lint and sweet oil were applied. I saw no more of the case until five days later, when I was called to it. I found the patient in complete prostration, and laboring under painful strangury.

I urged the friends to send for the attending physician, which they utterly refused to do, and I consequently assumed the responsibilities of the case. The dressings were removed, and, on cutting through the charred flesh, I found the texture destroyed

to the depth of at least half an inch. White paint was applied over the whole extent of the burned surface, and quinine and opium, with brandy, was administered internally. The dressings were changed no sooner than the circumstances of the case seemed to render necessary.

On the ninth day, the suppurative discharge became fully established. The bed was covered with oiled silk, and she chose to lay upon the burned surfaces rather than in any other position. The discharges were profuse and offensive, and the patient seemed to lay in a trough of putrefaction. Whenever new dressings were applied, the sufferings were so acute that the patient would shriek most piteously, and earnestly and beseechingly urge that we put an end to her sufferings by death.

Elixir vitriol was occasionally given, with the hope of preventing the poisonous action of the lead; and the dressings, the bed and the floor were freely sprinkled with a solution of the chlorate of lime. This treatment was continued for several weeks, and under the profuse purulent and exhausting discharges, the patient wasted away to almost a skeleton.

The treatment was continued for several months, with only slight variations. Sometimes the white paint dressings were discontinued, and white lead rubbed up with lard was used instead. This substitution was made more with reference to satisfying the friends with the idea of change, rather than because of any expected additional advantage to be derived from it. The elixir vitriol was given only for a short time; and when the exhausting discharges had considerably diminished, all stimulant and tonic medicines were abandoned.

The treatment, indicated above, was pursued for the first six months. After this, at each dressing, the surface of the suppurating sore was freely sprinkled with tannin, and the whole covered with an ointment made in the following manner:

| | | |
|----------------|------------------------------|-------------------|
| R ^y | Sugar of lead, | $\frac{1}{2}$ lb. |
| | Linseed oil, | 1 pint. |
| | Suet, a sufficient quantity. | |

Dissolve the lead in the oil, by the aid of heat, and add suet sufficient to bring to the consistence of an ointment, stirring until cold.

The tannin and the ointment were continued until the sore was entirely healed, which occurred at about the end of the tenth month from the date of the accident. The patient is now quite fleshy and in good health.

Many have feared to make use of lead applications to suppurating surfaces, for fear of poisoning from its absorption.

The main point of interest in this case is the protracted use both of the carbonate and the acetate of lead to a very large surface of the body, with no evidence of any absorption of that agent.

The fact that the granulations continued healthy through so long a period, and that so extensive destruction of integument was so kindly and entirely replaced, is sufficient evidence of the propriety of the applications.

There is one point in this case to which I wish to direct attention. The friends were directed not to wash the sore at all. Through the repeated importunities of neighbors, an attempt was made to use soap and water, in cleansing the sore, at one time in my absence, perhaps about three months after the receipt of the injury. The pain it occasioned was extreme, and the sores inflamed considerably, and did not recover their former state for several days. Strange as it may seem, healthy pus is the best possible protection to healthy granulations, and the best security against their unhealthiness.

When new dressings were applied, the sore was quickly and very gently wiped with dry lint only. So fast as new skin was formed, an attempt was made to give it firmness, by occasionally sprinkling it with tannin. The amount of purulent discharge was very great, and the patient's recovery was certainly unexpected.

The proper treatment of burns is becoming a matter of increasing interest, in these days of *hoops*, when accidents from clothes taking fire is of frequent occurrence.

ARTICLE IV.

REPORT OF CASES IN OPHTHALMIC PRACTICE.

BY E. L. HOLMES, M.D., OF CHICAGO.

(Continued from page 652.)

RUPTURE OF BOTH EYE-BALLS BY "GOUGING."

The following is a case of great interest, and is perhaps almost without parallel in the annals of ophthalmic science. The facts in the history of the case, previous to the time it came under my notice, I simply report as related by the patient himself. I cannot, of course, vouch for their absolute correctness. The condition of the patient's eyes, however, seemed fully to confirm his statements.

An Irish laborer, aged 37, from the country, consulted me in August last regarding his eyes. He stated that in March he was knocked down by an Irishman, who seized him with each hand by the hair of the head, and forced a thumb into each eye. After this brutal attack, he was robbed and left for some time without assistance. He was unable to see, and feared at the time that his eyes had "run out," since he felt fluid passing over his cheeks from the swollen and closed lids.

He remained nearly five weeks under the care of a physician, who prescribed poultices and wet compresses locally, and saline cathartics internally. During this time he remained totally blind, and suffered severe pain in and around the eyes. At the end of about five weeks, the pain began to subside, and on opening his eyes, he could distinguish a dim glimmer of light with his left eye. Vision was not improving; but another physician recommended him to take several powders which he prepared for him. After taking these, the patient grew quite unwell; his teeth became very loose, and for nearly three months he was unable to see as well as at first. He had used no collyrium except a solution of castile soap in water.

At his first visit to me in August, both eyes appeared normal in form, and yet, on raising the upper lids, the globes seemed flattened at their upper and inner (nasal) portion. The conjunctiva of each eye was slightly congested. Both corneæ were

perfectly round and transparent. The upper and inner quarter of the right iris had been torn away, leaving the pupil elliptical in form, one side being bounded by the circumference of the cornea, and the other by the remaining portion of the pupillary margin of the iris, which was drawn considerably towards the upper and inner border of the cornea. The radiating fibres of the iris appeared stretched and separated from each other, the interstices being filled, as it were, with lymph, which gave the membrane a blemished appearance. The left iris presented precisely the same peculiar aspect as regards texture; the pupil was situated at the nasal side of the iris, and was much narrower, only about one-eighth of the iris having been torn away. At the upper and inner portion of each globe was a cicatrix, in and around which, imbedded in the conjunctiva and sclerotica, were seen numerous black spots, as if small portions of the iris and the pigment layer of the choroid had become organized in these tissues. From the appearance of the irides, I suspected a displacement of both lenses, and confirmed my suspicions by the simple experiment of Purkinje.

It is well known that if the flame of a candle be placed immediately before the convex surface of the cornea, an upright flame will be produced, which appears to be situated in the anterior chamber of the eye. The anterior convex surface of the crystalline lens also produces an upright image, situated apparently behind the iris. The posterior surface (concave) of the lens produces a larger and inverted image of the flame, situated between the other two. If the candle be moved in any direction in the facial plane, the first two images will move in the same direction with it, while the other image will move in the opposite direction.

By thus placing a lighted candle before the patient's eyes, only one image could be seen, which was the one produced by the cornea,—thus showing that there were no other reflecting surfaces in the eye corresponding to those of the crystalline lens. In neither eye was the iris tremulous, as is usually the case when the lens is removed. The contraction of the fibres of the iris during cicatrization probably rendered them so tense that the ordinary motions of the eye had no effect upon it in

this case, even when the support of the lens behind it was removed. For the same reason, perhaps, light had no influence on the pupil. In the left eye, at the inner border of the cornea, where the iris was deficient, were seen small white pieces of membrane, projecting towards the pupil, which resembled portions of the capsule of the lens.

An examination with the ophthalmoscope showed that the lenses were not floating in the vitreous humor, caused probably by numerous fine black particles, scattered to such an extent through it, that it was very difficult to distinguish even the larger branches of the central artery and veins of the retina; the papule of the optic nerve was scarcely visible. This condition of the vitreous humor was more especially marked in the right eye, with which the patient was able only to distinguish light from darkness. With the other eye he could see sufficiently well to conduct himself in our streets with a little assistance from his attendant. He could not, however, define the outlines of objects, placed either near his eyes or at a distance from them. This loss of vision was caused not only by the abnormal condition of the vitreous humor and absence of the lens, but probably also by injury of the optic nerve and retina.

Although the patient appeared somewhat enfeebled, he stated that his general health was perfect. I simply prescribed *pot. chlo.* internally, and recommended a mild astringent collyrium for the conjunctival congestion. I also advised him to use plain nutritious diet, to exercise as much as possible in the open air, and apply the cold douche daily to the closed lids.

I have seen the patient three times since my first examination. A few days ago he could see to walk any street without assistance, and could read many of the signs upon the buildings. The right eye was also fast regaining its powers of vision. The vitreous humor was found to have recovered almost entirely its transparency; the vessels of the retina and the papule of the optic nerve were distinctly seen in each eye.

When we consider how delicate an organ the human eye is, and how often it is utterly destroyed by the finest instrument in the hands of the skilful operator, it seems wonderful that a

patient could suffer such terrible violence in *both* eyes, and recover, with the form of *both* organs and the power of vision so well preserved.

Mackenzie alludes to a case, reported by Mr. Dixon, in which each eye had been deprived by a blow not only of its lens but also of its *iris*. A cicatrix existed in each eye when the lens and iris had been forced through the sclerotica. The patient was able to read very well with the assistance of a perforated card and double convex lens.

It is a singular fact that a severe blow may in one instance be received on the eye without injury, and that a slight one, in another, may force the lens out of the eye, performing as it were the operation for cataract by extraction.

In the sixth number of the *London Ophthalmic Hospital Reports* (1859), is found the history of six cases in which the lens had been forced through the sclerotica and retained between this membrane and the conjunctiva. In accidents of this kind the rupture usually takes place at the upper and inner portion of the union of the cornea and sclerotica. The lens may escape entirely from the eye, or it may often be retained as a small tumor beneath the conjunctiva, which is so elastic that it does not always rupture with the firmer membrane under it.

I am permitted to refer to a case which some years since fell under the notice of Prof. Brainard. A grain of shot entering the eye of the patient at the outer angle, had passed through the globe behind the iris, and buried itself in the tissues at the inner angle. The shot had already been removed, and the wound on each side of the globe had healed, leaving a well marked cicatrix. Vision for distant objects was almost perfect. Possibly the lens had been displaced and absorbed, as in certain operations for cataract by division.

It may not here be out of place to state that "gouging" is not peculiar to America, as affirmed by certain foreign travelers. I am informed by good authority that in some counties of England and in Ireland this brutal mode of assault is not uncommon among the lower classes.

[We can assure the writer of the above very interesting paper, that "gouging" is a mode of warfare almost unknown in the British isles. An attendance for many years on some of the most extensive eye infirmaries of the empire would have afforded us ample opportunities of making ourselves acquainted with the fact, if it existed; for, if the practice of such iniquity prevailed there, we could not fail to have observed it. We cannot, however, recollect having seen in Great Britain or Ireland a case of injury of the globe of the eye that could be attributed to violence thus inflicted, and we should almost even be induced to altogether deny its occurrence there, if we had not been aware that Bidloo, in his "*Opera Omnia Anatomico-Chirurgica*," related, in bad Latin, the following case:—"Vidi, ante sex annos, Londini, virum robustum, cui amba oculi, horrendum in modum protuberabant: quod ad ipsam partium dispositionem, illam genuinam observavi, præterquam quod ipsis pupilla majuscula, cæsius color et insolita esset cum duritie magnitudo: visu tamen utrumque destitutum omni expertus sum; inquirens in causam, accepi, inter luctandum ab adversario suo, ira, gymnasticas, vel luctationis *Anglicanæ*, leges excedente, pollices fuisse oculorum orbitis intrusos hominemque mox, nullo inflicto vulnere, dolore correptum summo, non medicis, non chirurgis; sed visu restitisse orbum oculosque magis magisque distendi atque protuberare, quandoque cum, quandoque sine dolore." We have frequently known the lens to be dislocated by blows on the eye, and yet useful sight has been retained. Larrey has put on record a case illustrative of the amount of violence occasionally exerted, and in which vision was preserved, although the globe was burst, the lens expelled, and the vitreous and aqueous humors had escaped. There was, moreover, separation of the lower part of the cornea from its attachment to the sclerotic, protrusion of the iris, and extensive injury of the appendages of the eye. Yet, unpromising as the case was, the globe gradually refilled, the wound cicatrized, and by the aid of a very convex glass, objects becoming distinct, the man who was the subject of the injury was enabled to pursue his profession as a soldier. In cases of violence to the eye from blows, or even from pressure on its

surface, in the effort to perpetrate "gouging," we should, perhaps, apprehend as much danger to vision from the supervention of amaurosis, caused by the concussion of the retina, or even its compression, as from the rupture of the textures of the organ, or even from the separation of important parts from their connections. A case is related by Beer, in which indulgence in a practical joke thus caused incurable amaurosis from mere pressure. We give it in the words of the author: "Some years ago, I was called to a man, who had previously enjoyed excellent sight, but, a short time before I saw him, had, in an instant, become totally blind in both eyes. He happened to be in a company of friends, when suddenly a stranger stepped behind him, and clapped his hands upon his eyes, desiring him to tell who stood behind him. Unable, or unwilling, to answer this question, he endeavored to remove the hands of the other person, who only pressed them the more firmly on his eyes, till at length withdrawing them so as to allow the eyes to be opened, the man found that he saw nothing, and continued ever afterwards blind, without any apparent lesion of the eyes."—ED.]

SELECTIONS.

Diseases of the Corpuscles of Blood.

(From the *Medical News and Library*.)

With respect to disease or abnormal metamorphosis of the corpuscles of the blood, and its association with symptoms of fever, numerous observers have described their darker color, and the easy transudation of their coloring matter in typhus. Denis, for example, describes the blood in typhus fever as deficient in fibrin. He says that air had no effect in reddening it; and, on analysis, it was found to contain ammonia. Dr. Armstrong observed the blood in typhus from the temporal artery as dark as that from the veins.

The general appearance of blood in malignant fevers, has been described by Huxham and Fordyce. At the first commencement of symptoms of fever, the blood was sometimes buffed; but the clot beneath was always of a loose texture, scarcely cohering, and very dark in color. If the patient was bled two or three days after the onset of fever, the

blood was found incoagulable, having the appearance as when spirits of hartshorn is added to blood as it runs from the vein, which darkens its color, and prevents coagulation.

In the yellow fever of the West Indies, blood has been observed to be hotter than in health. As fever progresses, it becomes black and thin. Dr. Blair says that, in many instances, the corpuscles were found so much dissolved, that, in several specimens of fever-blood, but few of them could be observed.

It has been found that a diminished amount of carbonic acid is discharged from the blood by respiration in cases of fever; and this fact, taken in conjunction with the dark color of blood, is conclusive as to one, at least, of the functions of the corpuscles being disordered in fever.

Rokitansky, Simon, Perry, and many other accurate observers, all speak of the dark color and changed state of the corpuscles of blood in malignant fever, of the incoagulability of the plasma, and of the staining of the tissues and of the serum by the coloring matter which transudes the corpuscles.

As regards the microscopical appearances of the corpuscles of blood in fever, we hesitate at present to lay any stress upon them; because in persons in health, they very speedily change their figure and outline in a very uncertain manner. Some of them became notched with projecting points, and otherwise changed in outline; others assume globular forms; they are influenced as respects these changes, it would appear, by the temperature of the glass upon which they are received for examination, and by the way in which they are covered by the thin glass. Some are seen paler, and some smaller than others; some adhere closely together in rolls, others float about separately without the least disposition to adhere to their neighbors. All these varieties may be seen in the same small quantity of blood which is alone available for microscopic inspection, especially if the exterior edges of the film of blood be brought into the focus of the microscope.

Notwithstanding these obstacles to the drawing any positive conclusion from the microscopical appearances of the blood-corpuscles in cases of fever, it is quite as likely to be by the microscope as by chemistry that future advances in the pathology of these bodies will be made. For how can any bulky chemical manipulation satisfactorily eliminate results from the plasma from results from the corpuscles? especially if, under the influence of reagents, as we shall show, they throw out matter from their interior into the fluid in which they swim,

and yet preserve their integrity or individuality. "Hitherto, at all events," as Rokitansky has well observed, "chemistry cannot be said to have excelled, as respects the pathology of these bodies, the achievements of a circumspect anatomical survey, notwithstanding the limited resources at the disposal of the latter."

Experiment 1.—Take a slip of glass, such as is used for mounting microscopical objects, receive on it a very small drop of blood, and place close to it with a pipette a drop of any fluid, chloroform, ale, weak sugar and water, etc., and the quantity of the extraneous fluid should not exceed the quantity of blood. Upon now dropping on the two fluids a thin piece of glass, their nearest edges will mingle, but in various proportions.

In these experiments we find the *outline* and the *interior* of the corpuscles of extremely various appearance in the same experiment, but nothing appears thrown out from them.

Experiment 2.—Proceed as in the last experiment, but let the fluid used be sherry wine. The corpuscles, along the line where the blood and wine mingle, will soon begin to throw out molecules around their circumference, many of which pass away into the fluid; others grow out into long tails, which remain attached to the corpuscles, and terminate in a knob. They also wave about in a very singular manner. After some time (half an hour), the tails or filaments become nodulated, and then break away from the corpuscles, and when they have done so, they continue their singular movements in the fluid.

Some years ago, when making observations on the plasma or liquor sanguinis of blood, drawn by venesection in cases of fever and inflammation, we observed in the fluid a vast multitude of minute molecules. (*Medical Gazette*, vol. ii., 1841-42.) And the molecules seen in the experiment here related, are precisely the same in magnitude and appearance as those we saw in the fluid of blood drawn in the cases of fever. Now we believe that the blood-corpuscles do not immediately lose their vital or chemical properties when withdrawn from the body. Therefore, we regard the remarkable forms and actions they exhibit under the influence of sherry wine, as phenomena of a species of reaction, which, amongst multitudes of them, is various or unequal, hence the various appearances presented. In some, the resistance offered to the extraneous fluid is more easily overcome than in others.

We have frequently examined with the microscope blood taken from persons affected with scarlet fever, with reference

to the appearances in the plasma, and have always noticed the following facts. The colorless or plasma corpuscles are much more numerous than in persons in health, and especially so if the blood be drawn from the skin as the fever is passing off, and the epidermis beginning to exfoliate. They are of different sizes and present different appearances. In the open spaces between the rolls of red corpuscles, irregular masses of granular matter and numerous free molecules are seen floating in the fluid.

In cases of diphtheria, we find that the plasma presents the same appearances as are seen in scarlet fever. Formerly we supposed the free molecules observed in the plasma of blood, drawn in cases of fever and inflammation, to be derived from the colorless corpuscles; but now that we have seen them thrown out by the red corpuscles, there is actual proof that these corpuscles, in their reactions upon extraneous substances, do themselves throw off matter into the fluid in which they swim. The appearances, then, which we have seen in the fluid of the blood in cases of fever, and the behaviour of the corpuscles in the experiment we have related, appear to corroborate our conclusions respecting the excretions of the corpuscles passing into the plasma, and the association of these excretions with phenomena of fever.

Before proceeding with our argument, it will be convenient now to refer to some collateral incidents which require our notice.

First, it may be objected to our proposition respecting the antecedent of fever, namely, disorder or disease of the blood-corpuscles, that in venosity of blood, where a poisonous element of the corpuscles fails of being discharged by respiration, the symptoms are those of brain disturbance, and not of fever. In *morbus cæruleus* there is no fever necessarily.

To this objection it may be replied, that the presence of a venous quality in the corpuscles does not imply disorder or disease in them, in the same way that it is concluded to arise from miasms in the air. The substance—carbon or other matter—which gives to the corpuscles their venous character, is a substance natural to them, an essential ingredient of their composition in certain parts of their course in the circulation. Therefore, it is to be expected, it would occasion no unusual reaction on the part of the corpuscles themselves, though the brain suffers; whereas, a poison from the air may be presumed something quite heterologous to the corpuscles, and doubtless they react with more energy against a foreign injurious matter, than against anything which is a part of their normal composition.

In cases of blood-poisoning through the stomach, such as drunkenness from alcohol, narcotism from opium, and salivation from mercury, the locality and character of the symptoms point out which organ it is that suffers first or most from a particular poison diffused through the plasma. And if in these examples fever be absent, the argument is, that the parenchymatous organ is affected before the corpuscles of the blood, fever appearing when they partake of the disorder.

In cases of blood-poisoning through the lungs, on the contrary, the symptoms begin with fever, and the argument is, that the corpuscles of blood are here affected first, before the plasma or any of the local parenchymata; fever denoting an abnormal metamorphosis of the corpuscles.

A venous state of the corpuscles of blood is not an abnormal metamorphosis. The condition comprehended in the term venous is one natural to them. Misplaced venous corpuscles disorder the brain; but fever does not appear, because the venous state is natural to the corpuscles. The absence of symptoms of fever, when venous blood circulates arterially, is therefore no valid objection to the proposition we are arguing.

Again, we have hitherto purposely abstained from any reference to the brain or nervous system as causes of fever and inflammation, not because we underrate their powerful influence over blood and the secretions, but because so important a part of our subject requires a special consideration, which we can here but briefly indicate.

It has been argued in the former lecture, that the elements of the parenchymatous organs and the corpuscles of blood have the common properties of other living cellular bodies; and among these are properties of affinity, which differ in relation to different substances. And there can be no doubt that the corpuscles of the blood, as respects the various substances they encounter in their course during circulation have much more intimate relations with (or a greater affinity for) some than others. For example, in the lung, a special reciprocal action takes place between the corpuscles which are within the vessels and the air which is outside them. And, as if to facilitate this action, the coats of the bloodvessels in the cells of the lung are reduced to an extreme degree of thinness.

Now, it may be argued of any other special organ, where the coats of the capillary vessels are reduced to a still greater degree of thinness than in the lung, that they are so for a similar purpose. Thus, in the brain, an organ very largely supplied with blood, the coats of the extreme vessels are so thin

that we fail to trace them in all their various ramifications; indeed, so entirely are they altered that the elements of the organ have but a slight coherency. And, unless the contrary can be shown, we may infer this disappearance of the ordinary properties of bloodvessels to be for the purpose of removing all obstacle to the closest possible contact between the corpuscles of the blood and the parenchyma of the brain. This inference is corroborated by the fact that the brain is the organ specially affected by an abnormal circulation of venous corpuscles. That is to say, the brain is the organ which first detects the presence of an abnormal venous quality in the corpuscles.

If, then, we may regard the thinning away of the coats of the capillaries of the brain as facilitating a contact action between the corpuscles of blood and the substance of the brain; and if, moreover, we are able to appeal to the known effect of venous corpuscles upon the functions of the brain denoted by drowsiness, stupor, delirium, and coma, as proof of a special action between the brain and the corpuscles, then we may claim the constant occurrence of similar cerebral disturbances in fever as corroborative of the view which bases phenomena of fever upon abnormal metamorphosis of the corpuscles of blood; the brain—to use a chemical phrase—being the test of the condition of the corpuscles.

All the functions of a living body may be comprehended as a series of actions and reactions; and, if it be admitted that the corpuscles of blood do perform a special function in the brain, there must necessarily be reaction from the brain upon the corpuscles.

CASE.—A young married woman, aged 19, was delivered of her first child. The labor was natural, and she went on favorably until the fourth day from her confinement, when her husband stayed out late at night, and returned home drunk from a fair, very much knocked about. By this she was thrown into a state of great nervous excitement. Very shortly after, she was seized with a numbness of the legs and shivering, and then with pain in the head and wandering of the mind. The secretion of milk was interrupted; the skin became hot and dry; no sleep could be procured; and the pulse beat 120 in the minute. The wandering of the mind passed into furious delirium, and all the symptoms of fever and excitement continued for several days. It was only by judicious medical treatment and careful nursing that the disorder was subdued on the seventeenth day.

In this case, we argue that the fever arose, not immediately from the nervous shock, but from disorder of the blood-corpuscles; and, as our researches have led us to interpose dis-

temperatures of the fluid of the blood between errors in diet and inflammation, and disorder of the corpuscles of blood between aerial miasms and fever, so analogously of mental emotions and nervous shocks, when they occasion or aggravate fever or inflammation, we conclude they do so by disordering, or adding to the disorder, of one or other, or both parts of the blood. Errors in diet do not produce inflammation, unless the fluid of the blood be distempered; also a miasmatic air does not produce fever, except the blood-corpuscles be affected; so, too, great convulsions and loss of consciousness (in epilepsy, etc.) pass away without fever, if the blood be not affected. The close sympathy between states of the corpuscles of blood and the brain, then, supports our proposition that symptoms of fever and the generation of poisons in the blood are to be based upon disorder of the corpuscles.

The Structure and Functions of the Brain.

(From the *Cleveland Medical Gazette*.)

Dr. Luigi Meschi (*Gazz. Sarda*, 1—22, 1857,) offers the following views touching that most interesting, and still little explored, field of medical investigation, the brain and its physiology.

According to the difference in the cerebral structure, the entire animal kingdom is to be classified as follows: 1. Ganglia forming the termination of centripetal and centrifugal nervous fibres, as in the *Acalephs* and *Helminthes*. 2. One or more central ganglia, receiving, besides their own ramifications, fibres from other ganglia, forming in that way a two-fold system: peripheric and central, or sympathetic and cerebral ganglia. The number of the former increases with the development of the latter; the extreme is reached in a single part of central ganglia. *Molluscs*, *Cetacea*. 3. Two pairs central ganglia: an anterior and a posterior one, olfactory and optic, with hemispheres between them, and another ganglia, the cerebellum, resting on the spinal marrow. *Fishes*, *Reptiles*, *Birds*. 4. Cerebral ganglia covered by the hemispheres, for both of which the names of enveloped and enveloping ganglia are proposed. The *Corpus Callosum* only unites the hemispheres, and has not the specific properties of a ganglion. The cerebellum exhibits a similar arrangement: the two hemispheres, connected with each other by the *pons Varoli*, *vermis superior* and *vermis inferior*, cover the *corpora rhomboidea* as interior ganglia. The *corpora quadrigemina*, possessing the character of both the

forms of ganglia already described, and exchanging fibres with the thalamus as well as with the cerebellum, are to be considered as intermediate ganglia.

There is a current in the nervous fibres, but that in the sensitive nerves moves in an opposite direction to the one in the motory nerves. The current of the sensitive nerves either reaches the brain and is there perceived, or it is diverted by a ganglion in its way and transported to motory fibres, for the ganglia manifests an attractive as well as a repulsive action on the nervous current, combining a centripetal and a centrifugal pole analogous to the positive and negative electrical poles, the one connected with the sensitive, the other with the motory conductor. But both these poles are also found in the nervous fibres, be these sensitive or motory, and what is true in electricity, also applies here: The opposite poles attract each other, etc.

Now, with the centripetal current three things may happen: 1. If there is no ganglia in the way, the current reaches the brain and is felt; or, 2, the current meeting one or several ganglia is forced by them upon the motory fibres, and therefore not felt; or, 3, a part only of the current is deviated by the ganglia, while the other part goes on to the brain and produces there a sensible impression, although in a slighter degree. This explains, why the vegetative organs, dependent upon the sympathetic nerve, are insensible as long as nothing unusual takes place; these very organs, however, send a very perceptible current to the brain, as soon as any irritation increases the strength of the current; inflammation of the stomach or bladder, for instance, produces such an increase, apparently by increasing the energy of the nerves.

The principle working in the nerves results in some way from the blood; at least we have to suppose this, in order to explain the effects of the nerves that are connected with the heart. Cutting the vagi, we suppress all operation exercised on the heart by the fibres of the accessory nerve and surrender that organ to the influence of the sympathetic fibres from the lower ganglia of the neck. The nervous fluid, no longer allowed to extend its motions through the spinal marrow and the brain, is concentrated in those sympathetic fibres, and consequently the energy of the heart is increased, at least for some time. Under the influence of the accessorius alone, the cardiac ramification of the sympathetic nerve being separated, the motions of the heart are, on the contrary, diminished in frequency as well as force, for obvious reasons.

The brain, forming merely a combination of ganglia, cannot

possess sensibility or motory influence any more than the ganglia. The brain as a whole, is in that respect even less powerful than the ganglia, and what little of sensitive influence is allowed to pass to the brain, is soon spent in the central parts of it, so that little or nothing of it is left to spread over the cerebral convolutions. The effect of the sensitive currents on the brain thus being destroyed, certainly no motory impetus can result from them. To explain, therefore, the many motory effects evidently emanating from the brain, the adoption of another principle, working on the brain, is inevitable. This principle is the soul, the great cause of all arbitrary animal action, free, conscious, intelligent. The soul resides principally in the convolutions of the brain, and her action is manifested in four forms: consciousness, instinct, intellectuality and arbitrariness. The soul is the independent operator, and the ganglia, with their more automatic influence, produce in their combination every manifestation of animal life.

We cannot follow the author any further in the particulars of his explanation, nor do we at present feel inclined to enter into any special criticism of his doctrines. Waiting for the result of more extensive explorations, now instituted, and based upon skilful experiments, we do not deem it worth while to refute at length the errors committed, either by a perverse application of facts, or by illogical and unscientific conclusions drawn from correct observations; especially in reference to the vital action of the brain. While we may agree with Dr. Meschi in taking the brain as a more developed, or rather more highly organized ganglion, we must draw, from this very supposition, the inference of a more extended power in the central parts of the nervous system. Why is a man's intellect disturbed even to raving madness, by the smallest piece of bone pressing the brain, or by a diseased condition of that organ, if the soul as independent source of the intellect, is not the expression of the vital energy of the brain? That wonderful complex of nervous structures is certainly not the mere residence of the soul, enclosing it just like the shell that is secreted from, and formed around, the body of the snail. All the facts that we have, bearing upon the relation existing between brain and intellect or soul, rather lead us to the conclusion of the brain being the basis and the source of every intellectual action. The explorations already referred to will, undoubtedly, give us some more light upon this highly important point, and we shall then, probably, find an occasion to express our own views more fully, and to canvass the whole matter more thoroughly.

C. A. HARTMANN.

Transactions of the New Hampshire Medical Society, 1859.

The report of the Committee on Surgery, by W. D. Buck, M.D., contains several interesting points of practice. Among these we notice a suggestion to place the long splint on the outside of the sound thigh, in fractures of that part, when the extension or counter extension has produced excoriation of the perineum, or on the ankle on the side of the fracture. Dr. Buck recommends the use of adhesive plaster for extension in these fractures, attributing its first use in this way to Dr. Josiah Crosby, of Manchester, N. H., who, he says, is called "Sticking Plaster Crosby." We hope the name may adhere.

The following passage on amputation at the shoulder joint is interesting. The suggestion to remove the head of the humerus in order to facilitate the tying of the artery, we do not remember to have seen elsewhere.

Amputation of Shoulder Joint, by Josiah Crosby, M.D.—Within the last fourteen years I have amputated the shoulder joint four times, and removed the head of the humerus once. The first case was gun-shot wound; the second and third railroad accidents; in the fourth the arm was caught in the gearing of a flouring mill. In all these cases except the last, the bones were crushed to the head; in the last, the one caught in the mill, the bone was uninjured high up, but the brachial artery was completely severed high up. The integuments in three of the cases were so destroyed that it was impossible to get clear cut edges for dressing. In all of the operations the head of the bone was disarticulated and removed from its socket first, then the artery was easily reached and secured. The soft parts were then trimmed with as much economy as possible, to give covering to the wound. The first three cases made a good recovery. In the fourth case, an attempt was made to save the arm, but on the second day there was manifestly such a want of vitality that the operation was performed, but with no advantage to the patient, who died on the fourth day from the injury.

Perforation of the Femur, by Josiah Crosby, M.D.—Mr. H., aged thirty-five, when ten years old, had necrosis of the lower end of the femur, near the external condyle. During the progress of the disease, he fell and fractured the bone at the place affected. Both recovered together, and he had apparently a good limb, until March, 1857, when he was attacked with pain

in the seat of the old disease. The pain intermitted, so that for days he would be perfectly free from it, when it would return, increasing in severity and duration, until he was obliged to relinquish his business (a machinist) and devote himself entirely to the care of his limb. The pain became so severe that he was obliged to resort to large quantities of morphine and ether to get any rest. His flesh wasted; the whole limb was much smaller than the other; no swelling and but little tenderness, and that only when considerable pressure was made on the seat of the pain. A great variety of treatment was resorted to with no permanent benefit, and with very little temporary relief. Several surgeons were consulted, but all to no purpose; the patient constantly grew worse until he and his friends were fearful that he might lose limb or his life.

I visited him on the fourteenth of January, 1858, and proposed perforation of the bone, Dr. Hubbard, of this city, and Dr. Paige, of Candia, his attending physician, being present. The operation was performed the same day. An incision one inch long was made on the outside of the leg, about three inches above the articulating surface of the external condyle, and, at the suggestion of my friend Dr. Buck, the perforation was made nearly through the cancellated structure, with a three-eighths of an inch gouge bit, placed in a common bit-stock. The instrument perforated the bone with perfect ease in a half a minute. The bone appeared perfectly healthy, and no pus appeared. The wound was kept open by lint to prevent immediate union. The pain ceased a few days after the operation was performed, and the patient's appetite soon returning, he rapidly recovered, and is now enjoying good health with apparently a sound limb.

We had suggested the sub-cutaneous perforation of bone many years since, with the instrument in use for ununited fracture, but have not found occasion to put it in practice. In commencing abscess, if used early, it would seem to promise much.

TRANSLATIONS.

ON INFLAMMATION OF THE CERVICAL LYMPHATIC GLANDS.
(ADENITE CERVICALE.)

BY H. LARREY, MEMBER OF THE COUNCIL OF HEALTH OF THE ARMY, ETC.

We translate the following summary of a valuable memoir on this subject, read before the Academy of Medicine, Paris, 21st May, 1849, by the author:

"This disease is very frequent in the army, and therefore well known to military surgeons."

"It has been too exclusively regarded by most authors, ancient and modern, as allied to scrofula."

"It is in fact often scrofulous, but is also oftener due to other general causes, such as the influence of atmospheric localities, regimen, habits, particularly such as are inherent in the life of the soldier."

"It is often produced by local causes, such as affections of the scalp, face, ears, mouth, etc., also by mechanical compression of the neck."

"Its seat is in the parotid, sub-maxillary, mastoid, sub-hyoid carotid and supra-clavicular regions."

"It may be acute or chronic, and present variable local characteristics, without necessarily giving rise to general symptoms."

"When uncomplicated, it is generally easily diagnosed."

"Its course is sometimes rapid, oftener slow, and it often lasts longer than the cause which has produced it."

"It may terminate by resolution, or by suppuration and ulceration, or by induration and degeneration. Its anatomical characters are consequently very variable."

"Its prognosis is often unfavorable, so much so as to require discharge from the military service."

"It requires, according to its causes, forms and terminations, divers means of treatment—preventive, curative, hygienic, medical and surgical."

"It sometimes requires extirpation, from considerable hyper-

trophy, chronic induration or degeneration, and the operation, although sometimes delicate and difficult, is in these conditions generally followed by favorable results."

PROCEEDINGS OF MEDICAL SOCIETIES.

BROWNSBURGH MEDICAL SOCIETY.

In accordance with previous notice, the physicians convened at the Odd-Fellows Hall, in the village of Brownsburgh, Ind., July 21st, 1859, for the purpose of organizing a medical society.

On motion, Dr. D. H. Oliver was called to the chair; Dr. Ross C. Russ chosen Secretary *pro tempore*.

Dr. D. H. Oliver, on taking the chair, made a brief, though quite a comprehensive, speech to the Society.

A constitution and by-laws were then presented by the committee appointed for that purpose at a previous meeting, after considerable discussion, were amended, and unanimously adopted, as the Society deemed necessary, etc.

An election for permanent officers being the next thing in order, resulted in the election of the following named gentlemen, for one year, viz: Dr. H. H. Moore, President; Dr. William J. Hoadley, Vice-President; Dr. Ross C. Russ, Secretary. Drs. A. J. Graham, T. P. Seller and M. Clark Russ, Censors.

Drs. J. P. Graham and D. H. Oliver were appointed by the President essayists for next meeting.

On motion of Dr. D. H. Oliver, that the Secretary furnish the *Cincinnati Lancet and Observer* and *Chicago Medical Journal*, each a copy of the proceedings of this meeting, that they might be published at the request of the Society.

On motion, the Society then adjourned, to meet in Brownsburgh on the first Thursday in January next, at 10 o'clock A. M.

H. H. MOORE, President.

ROSS C. RUSS, Secretary.

MISCELLANEOUS MEDICAL INTELLIGENCE.

ANEURISM OF THE RIGHT CAROTID AND SUBCLAVIAN ARTERIES; LIGATION OF THE ARTERIAL INNOMINATA. BY E. S. COOPER, M.D., SAN FRANCISCO.

The October number of the *American Journal* contains a report of this case, if report it may be called, which omits nearly every important fact connected with the history of the case, the seat and extent of the disease, its effects, etc.

Dr. Cooper states, "I long tried to make room for the application of a ligature to the Arteria Innominata without removing more important structures." (?) "Finding this, however, almost, or quite impossible, I proceeded to remove the summit of the sternum and the sternal extremity of the clavicle." "The patient gradually sank until the 9th, when he expired." Among the *post mortem* appearances was observed a tubercularization of the right lung.

We notice this operation, to say that it is one which cannot receive the approbation of any judicious surgeon.

Ligature of the arteria innominata has been performed nine times. In all the result was fatal, viz:

1. Dr. Mott, May 11, 1818.—For aneurism of the subclavian and carotid arteries, extending to the innominata. Death the twenty-fifth day, ferny coming from the distal side of the ligature.
2. Graeffe of Berlin, for aneurism of the subclavian artery. Death the sixty-seventh day from hemorrhage.
3. Bland of Sidney, New South Wales. Death the eighteenth day, from hemorrhage from the subclavian artery.
4. Richard Wilmot Hall, for aneurism of the subclavian artery. Death in five days, from hemorrhage.
5. Lizars, for aneurism of the subclavian artery. Death the twenty-first day.
6. Kuhl of St. Petersburg. Death the third day.
7. Arena, surgeon of the Emperor of Russia. Death five days after the operation.
- 8 and 9. Bugalsky. Details not given. Death soon after the operations.

No notice of the situation of the aneurism, or the state of the artery, are given in the autopsy.

Cases of this kind, published without comment, and thus partly endorsed by journalists, have given rise to the term "audace Americaine," used by Trousseau. If editors, in giving currency to this and similar reports, would express their opinions of the propriety of such operations, it is likely that fewer would be done, and the responsibility be thrown upon the individuals who, without any prospect of benefit to their patients, think fit to resort to them.

PROFESSOR PAUL F. EVE.

This distinguished Professor in the University of Nashville has been making a tour in Europe, where he has written a series of spirited letters to the *Nashville Medical Journal*. Everywhere, at Milan, Turin, Paris, London, Prof. Eve seems to have been received with the attention due to his position. He was elected corresponding member of the Imperial Academy of Medicine of Vienna, and returns, doubtless, with mind enriched and spirit refreshed, to the duties of his course and practice.

Dr. S. W. BUTLER, senior editor of the *Medical and Surgical Reporter*, Philadelphia, has been appointed Chief Resident Physician to the Philadelphia Lunatic Asylum.

We are pleased to learn that Prof. Blackman, of the Ohio Medical College, has in preparation a work on surgery, intended as a text book for students, and a guide for practitioners, which will be issued from the press in season for the courses of 1860.

Prof. Blackman has many qualifications for the task, among which may be particularly noticed a good knowledge of his profession, an acquaintance with the standard authors, and a mind which will take pleasure in collecting and arranging the

scattered and valuable contributions of American surgeons, instead of neglecting, ignoring or garbling them, as is oftener done by writers of systems of surgery. We make this statement principally on the evidence afforded by his notes to Velpeau, by Mott, which afford proofs of his industry and impartiality, and a perusal of his contributions to periodical literature, which are distinguished by careful attention and just appreciation, and in which statistics of operations are frequently presented. We think the appearance of his work will be anticipated with pleasure.

We are informed that a new medical journal will soon be issued in Cincinnati, under the editorial management of Professors Lawson and Blackman.

The character and qualifications of these gentlemen are a guarantee that it will be worthy of the best portion of the profession in Cincinnati, which has hitherto been greatly in need of a suitable organ.

We learn from the *Boston Medical and Surgical Journal*, that Dr. Eli Ives has declined the office of Junior Secretary of the American Medical Association. President Miller has appointed Dr. Stephen G. Hubbard of New Haven, to fill the place. Dr. Eli Ives is 81 years of age, and the appointment was probably intended for Dr. N. B. Ives. It was offered him by the President, but on account of ill health he declined it, and Dr. Hubbard received the appointment.

We never doubted that the profession of New Haven would give the Association a hearty welcome, but when, in announcing that though Connecticut was not represented in the meeting at Louisville, the next was appointed at New Haven, we remarked that the profession of that city would be taken by surprise, one or two of the journals took us to task for intimating such a thing. The above item will show how bunglingly the affair was managed. It would be a little singular if the appointment of an octogenarian as Junior Secretary of the Association had not caused a little surprise.

We mark the above extract from the *Medical and Surgical*

Reporter, for the purpose of calling attention to a movement initiated at the last meeting of the Illinois State Medical Society, looking to the establishment of a rule that, at future meetings of the National Association, the presidents should not be chosen from among the members of the profession of the State or city in which the meetings may be held.

This movement originated, it is understood, with a single ambitious individual, and should it be followed up, may be regarded as a singular additional compliment to the profession of the city of New Haven, and the State of Connecticut.

THE CHICAGO CHARITABLE EYE AND EAR INFIRMARY.

During the six months, ending Nov. 1, 1859, *one hundred and eleven* patients have been treated by the surgeons of this Institution, making an aggregate of *two hundred and twenty-six* patients, who have been under their care since its organization.

This result shows a continued and increasing confidence in the Infirmary, on the part of those who seek treatment for diseases of the eye or ear, and must encourage its friends to continue their efforts to provide relief for this class of sufferers.

A charitable institution of this kind merits the interest and support of the public, since everywhere around us there are large numbers of poor afflicted with serious diseases of the eye, who are unable to meet the expense of suitable medical aid. Such patients are for a long time able to attend more or less to their usual labors, and consequently scarcely excite the notice or sympathy of the casual observer. In this condition, however, night and exposure frequently tend so much to increase their maladies, that they are soon unable to labor: the diseases are too often allowed to progress beyond the reach of treatment, and the sufferers, being incapable of gaining a support for themselves and families, are for ever after dependent upon their friends or the public.

To avert these evils, as far as possible, infirmaries have been established in nearly all the large cities of the civilized world,

for the especial treatment of the poor, afflicted with ophthalmic diseases, and in many instances have been most richly endowed by public subscriptions.

From the fact, moreover, that eye infirmaries offer the means of preserving many sufferers from blindness, and consequently from being a burden to the State, as pupils in the Blind Asylum, the legislatures of several States have granted large sums of money for the support of these infirmaries, not only on the ground of humanity, but also of economy.

There is especial need of a good infirmary at Chicago. The city, already large, is rapidly increasing in wealth and influence. The population, of which it is the commercial centre, is numbered by millions; few are aware how extensively severe affections of the eye prevail throughout the North-west. There is no public infirmary for these diseases in the Western States, and many patients, who can ill afford the expense, feel obliged to visit the Eastern cities for treatment.

It is hoped the physicians and the people of the State, will give the subject the serious thought the subject deserves.

Officers of the Association.—Walter L. Newberry, President; Charles V. Dyer and Luther Haven, Vice-Presidents; Samuel Stone, Secretary; Edward L. Holmes, Treasurer.

Trustees.—Walter L. Newberry, William H. Brown, Charles V. Dyer, Luther Haven, Ezra B. McCagg, William Barry, Flavel Moseley, Samuel Stone, Philo Carpenter, Rev. N. L. Rice, D.D., John H. Kinzie and Mark Skinner.

Board of Surgeons.—*Trustees ex-Officio.*—Consulting Surgeons, Prof. Daniel Brainard, M.D., Prof. Joseph W. Freer, M.D.; Attending Surgeons, Edward L. Holmes, M.D., Wm. H. Baltzell, M.D.

ILLINOIS STATE MEDICAL SOCIETY.

At the annual meeting of the Illinois State Medical Society, held in Decatur, on the first Tuesday in June last, the undersigned were appointed a Committee on Practical Medicine.

In order to fully accomplish the object of the appointment,

we must take the liberty to ask the following questions of our medical friends throughout the State, and respectfully solicit answers to the same:

1. What have been the most prevailing diseases in your locality during the year? Give causes, symptoms, treatment, and rate of mortality.
2. Has any unusual epidemic prevailed in your section of country? If so, give character, treatment, etc.
3. Do the ordinary diseases of your region seem to undergo changes from year to year? If so, what are those changes, and what different treatment is necessary?
4. Has Typhoid Fever been prevalent in your section of country? Give your views of the pathology of Typhoid Fever, also, your treatment, etc.
5. Has Cholera Infantum prevailed with you during the year? Give cause, treatment, etc.
6. Has Diphtheria been prevalent with you? If so, give your views of the disease, treatment, etc.
7. Has Stomatitis Materna prevailed in your vicinity? Give suggestions as to causes and treatment.
8. Have you any improvements to suggest in the treatment of any disease?
9. Please give Topographical Description—so far as practicable—of your locality, together with any facts that may come under your notice, which will be interesting to the profession.

Address Christopher Goodbrake, M. D., Chairman of Committee, at Clinton, DeWitt county, Illinois, as early as March 1st, 1860.

CHR. GOODBRAKE,

F. B. HALLER,

D. W. YOUNG,

} Committee.

On account of the general interest felt at this moment in the subject of poisoning, as well as the intrinsic importance of the subject, we transfer to our columns the following editorial notices of the Smethurst case, from the London *British and Foreign Medico-Chirurgical Review* and the London *Lancet*,

both authoritative publications in England. We intend to return to the subject of the chemical analysis in the Jumpertz case, which, being at this moment on trial, is not perhaps a proper subject of comment at present.

THE SMETHURST CASE.

The necessary limitation of space prevents us from noticing in the briefest terms upwards of forty other cases of forensic interest which have appeared since our last report in the British and Foreign Journals. We must, however, for the sake of our Continental readers, say a word respecting the famous Smethurst case, which in this country has for some months been the leading medical topic. This case was one in which poison was suspected; but as there was no evidence of poisoning as the cause of death, save in the imagination of men who have gifts in that direction, we could not logically put the case in our toxicological section. The essence of the case is that a woman, forty-three years of age, and having premonitory indications of abdominal disease, became pregnant. That upon the pregnancy there resulted vomiting, an aggravation of the intestinal disturbance and dysentery. In great measure from starvation (owing to the inability of the stomach to retain food), to which must be added the exhaustion produced by the dysenteric disease, death was the result. *Facilis descensus averni*: the medical philosophers who attended the case, not appreciating the meaning of the previous history of the woman, ignoring altogether the fact of pregnancy, and mistaking the symptoms which peculiarly mark starvation, came to the hypothesis that the case was one of slow irritant poisoning. Nevertheless, they took no pains for many days—not indeed until death was at the door—either to remove the poisoner, to look for poison, or to give an antidote. On the contrary, they prescribed for the case as one of ordinary disease almost to the end. When, granting that the case had been a case of poison, it was too late to do anything, the supposed poisoner was arrested, the antidote was supplied, and the poison was searched for. Suffice it to add, that no poison was found in the possession of the prisoner; none *satisfactorily* in the body of the patient after her death; that the post-mortem appearances were admitted to be dysentery; and that the fact of the existence of pregnancy was revealed by the knife. In spite of all, the vague hypothesis was adhered to. A man was tried for his life, and a jury, overpowered by the dogmatic, and, we may add, stereotyped statement of the scientific witnesses for the prosecution; to wit, that

death could only be attributed to irritant poisoning—condemned the prisoner to the scaffold. Since the condemnation the country has risen up against it, and the Secretary of State for the Home Department, than whom a more logical mind is not in this realm, has granted a reprieve from death. The nation is thus happily relieved from a national sin, and English science rescued from indelible disgrace.—*Med.-Chir. Rev.*

THE CASE OF THOMAS SMETHURST.

The reprieve of Smethurst may be regarded as the verdict of the country. It is a remarkable example of the value of public discussion. It is, above all, a signal proof of the pure love of justice that stamps the national character and institutions of England. It would be difficult to point to any convict who has excited so little personal sympathy as Smethurst. His previous career, and the circumstances of his connection with Miss Banks, are so marked by low selfishness that no feeling akin to tenderness or pity can be entertained towards him. Not even the plea of passion too wild to bear the restraints of law or religion can be urged in extenuation of his conduct. Sordid, calculating venality appears through all. Notwithstanding the absence of any personal quality or collateral circumstance to stimulate the movement in his favor, he has been snatched from the gallows by the almost unanimous decision of his countrymen, who, reviewing the case upon its abstract merits, find that the heavy charge upon which he was found guilty by a jury is not substantiated by the evidence. Casting aside all feeling for or against the prisoner, unswayed by the circumstances that seem to establish a motive for the crime and to justify a strong suspicion of foul play, the country, acting as a court of appeal, has deliberately analyzed the evidence, and, finding it defective in the essential points, has cancelled the verdict of the jury. It may be doubted whether in any other country a revision of the sentence of a legally-constituted tribunal would be conducted by the press and by the people in a temper equally free from excitement, and in a spirit so purely vindicatory of public justice. The history of such a case as this may well be referred to as an answer to those foreign jurists who reproach us with the want of a court of appeal in criminal cases. With a free press, with the habit of judicial investigation, and the simple love of justice that animates every citizen amongst us with the resolve to see right dealt out to every one, we stand, perhaps, in less need of a complicated ascending scale of criminal courts than is experienced in countries where the tribunals receive little or no aid from external discussion. In this case it may be said that,

through the machinery of the press, not Smethurst, but the Law, has enjoyed the benefit of the experience of the entire body of the medical profession, in the elucidation of the obscure scientific questions upon which the verdict turned. The evidence elicited before the jury has not only called forth fresh testimony, but has naturally challenged the criticisms of the profession. The result is a partial, if not wholly satisfactory, vindication of justice. The spirit of English law yet calls for something more than a reprieve. If it be admitted—and the reprieve actually admits so much—that Smethurst is not proved to be guilty of the crime of murder for which he was arraigned, he is logically and justly entitled to an absolute discharge. If he is still held a prisoner, it must be either for the crime of which he is admitted to be innocent, or for some other crime for which he has not been put upon his trial. But we cannot in this place pursue the inconsistencies of our criminal law. We may leave them with the less regret, under the conviction that the resulting evils are mitigated by the wholesome action of public opinion. Although Thomas Smethurst, now declared not proved guilty of murder, can only be released by the granting of her Majesty's pardon for that offence, the gross inconsistency that strikes the moral sense can work but little harm, in the face of that universally-operating public opinion which sees through the fiction, and reduces it to a technical form.

We reserve for our next publication a critical epitome of this now celebrated cause, the special object of which will be to bring out its medico-legal bearings. Our present purpose is simply to advert, in a general manner, to the public interest of the case as illustrating the advantages accruing from a free discussion of the evidence; and the position more especially, of Medicine as an ally of the Law. To some, perhaps to many, it may appear that Medicine in this case has been at fault; that since it was made to support a charge of the heaviest degree of criminality, which upon more rigorous examination could not be sustained, scientific testimony has lost its claim to some of that confidence which it challenges before the world. It is no part of our duty to defend indiscriminately every medical witness. The profession are only concerned for the just credit of Medicine. We may observe, that if Medicine may seem to have sustained some little hurt in this trial, it is not because science was at fault, but because she was unfortunate in the particular individuals who chanced to be her exponents. It so happened that the witnesses for the prosecution failed to grasp all the scientific elements in the question before them, and consequently, to appreciate at their just value the facts which fixed their at-

tention. But their omissions have been amply supplied by the correcting experience and more deliberative judgment of the witnesses for the defence, and still more by the re-examination of the evidence by the general body of the profession. In this way Medicine has in the end fully asserted her competency and usefulness. By common consent, the public has admitted the insufficiency of the moral and general evidence to justify conviction for the crime of murder. The moral evidence at most raises a presumptive motive—suggests that Smethurst had an interest in destroying Miss Bankes. Of direct evidence, such as the possession of poison by the prisoner, mixture of poison with the food or medicine, there is none. The whole case rested, in the first place, upon the scientific evidence. That must first be proved which Medicine only is competent to prove—namely, that the deceased died by poison; then the moral and general evidence which suggests that the prisoner was the most likely person to administer the poison, comes to bear. But unless the first—the strictly medical point—be decided in the affirmative, the second point has no existence—the general evidence goes for nothing. Now if, trusting too implicitly to the partly erroneous and generally fallacious testimony of the scientific witnesses for the prosecution, the jury came to the conclusion that Miss Bankes did die from the effects of poison, the appeal after the trial to the wider experience and unprejudiced judgment of the profession completely proved the fallacy of the first conclusion, and established the perfect competency of Medicine to pronounce a satisfactory decision upon the case as presented to the public. That decision has, in fact, been accepted by the public; and its ratification by the Home Secretary is the final acknowledgment of the services that science has in this case rendered to the administration of justice.—*Lancet*.

BOOK AND PAMPHLET NOTICES.

A SYSTEM OF SURGERY—Pathological, Diagnostic, Therapeutic and Operative. By SAMUEL GROSS, M.D., Prof. of Surgery in Jefferson Medical College, etc. Illustrated by 936 Engravings. In two volumes. Pp. 1162 and 1190. Philadelphia: Lea & Blanchard. 1859.

We have deferred the notice of this voluminous work of Prof. Gross in order to be able to speak with better knowledge of its value, but confess that up to the present time we have not been able to do more than examine some of its more important chapters. Indeed the perusal of 2358 pages, the

greater part of which is necessarily made up of compilation from various sources, is a task to which we feel but little disposed, more as the merits and defects of the author are sufficiently known from his former works.

Notwithstanding the great extent of this work, it were easy to point out defects as to completeness. The pathology it inculcates is, in many instances, contrary to our own views, as well as to those generally believed. Many of the illustrations are familiar to the profession from having been used in other volumes. The subject is much too vast to be fully treated in a book even so ponderous as this; and when the chapters on pathology are compared with the work of Paget, those on fractures with that of Malgaigne, on operations on the eye with that of Walton, etc., the advantage of these monographs is very apparent. These, however, are difficulties which no writer could overcome. When Prof. Gross speaks of his own experience and gives first illustrations, his work is throughout interesting and readable. The labor of its preparation was so great that we cannot but admire the courage which would prompt the undertaking. Without presuming to compare it with such works on surgery as that of Boyce in French, or Coope's Surgical Dictionary in English, we can confidently recommend it as a useful treatise for reference, and a valuable and ever necessary addition to every surgical library.

EDITORIAL.

WOORARA AS A REMEDY FOR TRAUMATIC TETANUS.

We notice that M. Vella, through M. Bernard, has presented to the Academy of Sciences, Paris, a paper on this subject. M. Vella had concluded that the action of the woorara is antagonistic to that of the cause of tetanus. He accordingly applied it to some of the wounds of patients affected with tetanus, and was of the opinion that the spasms were in a measure controlled by it.

While we approve the effort of M. Vella to search for new

remedies against this intractable disease, we cannot adopt either his theory or his practice in this instance. Woorara was, during the latter part of the last century, tried for tetanus in London, without success. Having noticed this fact in an old journal, which is not at hand, we tried it as an antidote to strychnia, but found that mixing the two poisons together killed much more quickly than the employment of either singly. We have tried it also upon ulcers. It is, when mixed with simple cerate in proportion of 10 grs. to the ounce, quite harmless, produces no perceptible constitutional effects, and acts as a stimulant to the sore, suppressing the discharge of pus, and causing the surface to be covered with a thin layer of fibrine.

SURGICAL ITEMS.

1. *Reductions of Dislocations of the Hip Joint by Manipulation.*

Since making the note published in our issue for October, a case of this accident has fallen under our notice, which differs in some respects from those heretofore met with. It was that of Page, the baggage-man, injured at the accident on the Chicago and Northwestern R. R., near Watertown, Wis. The head of the bone lay in the ischiatic notch. Near three days had elapsed since the accident. Efforts at reduction had been made by a surgeon from Milwaukee, who, after applying, as we were informed, a very great mechanical power, without success, pronounced it a *fracture of the neck of the femur*, but left it without applying any dressing. The ligaments of the hip joint appeared to be entirely torn across and much contusion produced, as the member could be moved more freely than is usual in such cases.

Reduction by Reid's method was effected, but less readily than is usual. After the reduction, a slight tetanic spasm supervened, which lasted several days, but which, at our last visit, Nov. 24, three weeks after the accident, had almost entirely disappeared.*

* We have felt called upon in this case, contrary to uniform practice, to

2. *Exsection of five Tarsal Bones for Caries.*

J. B., aged 26 years, was received into the Chicago City Hospital, Nov. 8, 1859, on account of a chronic enlargement of the bones of the tarsus of the right foot. The disease was of eighteen months' standing, and involved the bones between the head of the metatarsus and the ankle. The patient was in good health; had suffered little pain.

Wednesday, Nov. 9, 1859, the operation was performed as follows: An incision was made across the tarsus at its junction with the metatarsus, and a flap raised toward the ankle. The three cuneiform, the navicular and the cuboid bones were found diseased, and removed. Suppuration had already taken place between the middle cuneiform and the second metatarsal bone, the head of which was cut away with the cutting forceps. The *arteria dorsalis pedis* alone required a ligature. The edges of the wound were stitched together, and the member placed in a fracture box. No accident occurred. The wound is at the present time nearly cicatrized, and the foot only appears shortened.

3. *Strangulated Femoral Hernia.*

This was an old hernia in a patient, 62 years of age. A truss had been worn without the reduction being fully effected, so that a mass of omentum had become intimately adherent to the sac, so much so that this was hardly distinguishable. One mass of omentum passed upward and outward above Poupart's ligament, another in the opposite direction, while in the midst was a small knuckle of intestine of recent protrusion.

The strangulation had existed three days, and frequent efforts at reduction had been made. The separation and reduction of the omentum after the stricture was divided, was a work of much difficulty, but this was at length effected. The operation was performed, Nov. 19, 1859. Up to the present date (Nov. 22) the patient is doing well.

make a statement of facts, which may seem to reflect upon the surgeon previously called, in consequence of the attacks repeatedly made upon us in the *Milwaukee Daily News*.

4. *Amputation at the Hip Joint.*

This, the third we have had occasion to do, was performed Nov. 16, at the City Hospital. The patient, a woman, aged 30 years, had a large encephaloid tumor of the left lower member, which extended from the middle of the leg to near the hip. A bony and brain-like tumor, of large size, had been removed from behind the knee of this patient eighteen months previously, by Prof. Freer, and she remained well for about one year, when the commencement of the present growth was perceived.

The vascularity of the tissues, the vessels of which were of immense size, rendered the operation difficult, and it was necessary to tie the principal arteries before finishing the operation, which was completed, however, without unusual loss of blood, owing to the care of Professors Freer and Rea, in compressing the vessels as soon as divided.

For forty-eight hours the patient did well, but at the end of that time tympanitis and nausea with vomiting occurred, and she died sixty hours after the operation.

5. *Resection of the Head of the Humerus for Gunshot Wounds.*

November 27, we were called to consult about the case of W. B., of Kendall county, Illinois, who, thirty-two hours previously, had received a charge of buckshot in the left shoulder, immediately below the head of the *humerus*. The charge was supposed to have been fired with the intention of committing murder. The bone was extensively shattered, some of the shot glanced, and came out in front on the left side of the chest. Some appeared to have penetrated the thorax, as there was emphysema, and had been some expectoration of blood. As the sensibility and temperature of the member were preserved, we advised the removal of the shattered fragments, and performed the operation. As the fracture extended to the head of the bone, this was also removed.

~~20~~ The article by Dr. Gibbs on the use of white lead in burns should have appeared under the head of selections instead

of that of original articles;—it had already been published in that excellent journal the *N. Y. Med. Monthly*.

We have recently used it in the City Hospital on a case which seemed quite hopeless from its extent, and it seemed for several days to exert a very favorable influence on the condition of the patient, although his condition is still doubtful.

COLLEGE OF PHARMACY.

An organization under this name has been effected in Chicago. Among the appointments, those of Prof. Blaney to the chair of Chemistry, and F. Scammon to that of Pharmacy, may be noticed as excellent. Similar attempts in other cities have, with few exceptions, failed, but we trust that this may be more fortunate.

RUSH MEDICAL COLLEGE.

It may be gratifying to the alumni and friends of this College to learn that the recent separation of several members of the Faculty has not in the slightest degree diminished its prosperity or changed the regularity of its operations. On the contrary, the present class is the largest which has attended its courses since its organization, with the exception of those of the years 1847, '48, '55 and '56. The newly elected professors are giving courses of lectures at once solid and brilliant, which recall those of the earlier years of its existence. Additions are being made to its collections. Unity of purpose to place the College in the first rank in regard to the value of its courses and the extent of its facilities prevails among all its members.

THE JOURNAL.

With the present number terminates the second year of its existence under its present name, the sixteenth of the entire series. During the nine months which we have had charge of it we have been cheered and encouraged by the approbation of its patrons and the courtesy of our friends of the medical press. Our list has increased; the medical journals throughout the entire country, with a single exception, have shown a friendly spirit. We enter upon a new year with hope and confidence.

The same general plan will be continued in its management. In order to add to its interest, however, a series of illustrated contributions to surgery by the senior editor will be given during the year. There is one point upon which a word of explanation may be due to some of our subscribers. We have at different times sent out printed slips to those who are in

arrears. These seem to have been taken by those who have paid as addressed to themselves as well as to others.

This was not intended; and our reason for sending them to all was that so many cases were found to exist where subscriptions have been paid, or claimed to have been paid, but which the books did not show, that we adopted this course (borrowed from some of the best of our exchanges) as the surest method of communicating with those in arrears.

In order to guard against the recurrence of such an accident, and to remedy as far as possible the irregularities which have heretofore crept in, Prof. EPHRAIM INGALLS will hereafter be associated with the senior editor as joint proprietor and editor. Dr. Ingalls will have charge of the books, circulation and exchanges, and communications may be addressed to him or to the senior editor.

PROSPECTUS OF THE CHICAGO MEDICAL JOURNAL FOR 1860.

This Journal will be continued in its present size and form. It will embrace—

1. *Original Articles* of value: communications from former contributors, and others, are earnestly solicited.
2. *Book Notices*, embracing such mention of all important works as will enable our readers to form a correct estimate of the value of each.
3. *Selections* of interest from American and foreign journals.
4. *Editorial* on subjects demanding notice.
5. *Miscellaneous Medical Intelligence*.

It will be the object of the editors to make the Journal valuable as a scientific and practical work, rather than a medium for discussion of medical politics.

We must here invite the attention of our subscribers to the importance of remitting our dues promptly. While a large number have already complied with our terms, there are, we regret to say, still many, well known to us as honorable and responsible gentlemen, who remain indebted to the Journal for one or two years' subscription. We respectfully and urgently solicit of these their immediate attention to this subject.

Terms, \$2 per annum, payable in advance; if not paid within three months from the commencement of the year (April 1, 1860), the price will be \$3.

Clubbing.—Six copies will be sent on the receipt of \$10.

The Surgical Clinic of the College will be held on Saturday afternoon of each week at the College. All operations performed gratuitously.

